

**WHAT IS CLAIMED IS:**

1. A swivel hinge assembly, comprising:  
a first rotary shaft configured to be rotatable about a substantially vertically extending axis;  
a base in the shape of a partially cut out disc and configured to be rotatable in a substantially horizontal plane by the first rotary shaft; and  
a second rotary shaft, which is installed on the base, at least a portion of which is configured to be rotatable about a substantially horizontally extending axis, which intersects with the first rotary shaft.
2. The swivel hinge assembly as claimed in claim 1, wherein the base is in the shape of a disc opposite ends of which are symmetrically cut out.
3. The swivel hinge assembly as claimed in claim 1, wherein the first rotary shaft and the base are integrally formed.
4. The swivel hinge assembly as claimed in claim 1, wherein the base is formed with a hole at a center thereof and the first rotary shaft is inserted into the hole for engagement with the base.
5. The swivel hinge assembly as claimed in claim 1, wherein the second rotary shaft and the base are integrally formed.

6. The swivel hinge assembly as claimed in claim 1, wherein the first rotary shaft and the base are configured to be mounted on an electronic device including a main body and a display unit, and the second rotary shaft is configured to be connected to the display unit of the electronic device, thereby allowing the display unit to be vertically and horizontally rotated with respect to the main body.

7. The swivel hinge assembly as claimed in claim 1, wherein the second rotatable shaft included grooves configured to receive therein wirings of an electronic device in which the swivel hinge assembly is employed.

8. The swivel hinge assembly as claimed in claim 1, further comprising a mounting base configured to be secured to a main body of an electronic device and to rotatably support the first rotary shaft.

9. The swivel hinge assembly as claimed in claim 8, wherein the mounting base comprises a cylinder configured to receive the first rotary shaft within an inner circumference thereof.

10. The swivel hinge assembly as claimed in claim 9, wherein the first rotary shaft includes a projection configured to mate with a groove provided on the cylinder which limits rotation of the first rotary shaft.

11. The swivel hinge assembly as claimed in claim 9, wherein the mounting base includes one or more fixing pins configured to secure the mounting base to a main body of an electronic device.

12. The swivel hinge assembly as claimed in claim 1, further comprising a spring-loaded step configured to releasably lock the base in a predetermined position.

13. The swivel hinge assembly as claimed in claim 1, further comprising a cover plate configured to cover the base.

14. The swivel hinge assembly as claimed in claim 13, wherein the cover plate further comprises a housing configured to cover wirings of an electronic device in which the swivel hinge assembly is employed.

15. A portable electronic device comprising the swivel hinge assembly of claim 1.

16. An electronic device, comprising:  
a main body having an opening therein;  
a rotatable display unit; and  
a swivel hinge assembly configured to rotatably connect the display unit to the main body, wherein the swivel hinge assembly comprises:

a first rotary shaft configured to be rotatable about a substantially vertically extending axis and which is supported on the main body;

a partially cut out base configured to be rotatable in a substantially horizontal plane by the first rotary shaft in the opening such that the base is level with a top surface of the main body; and

a second rotary shaft, which is installed on the base, at least a portion of which is configured to be rotatable about a substantially horizontally extending axis, which intersects with the first rotary shaft, and which is connected to the display unit.

17. The electronic device as claimed in claim 16, wherein the base is in the shape of a partially cut out disc.

18. The electronic device as claimed in claim 17, wherein each cut out in the base includes a plurality of cutout portions that extend inwardly toward the second rotary shaft.

19. The electronic device as claimed in claim 17, wherein the base comprises a plurality of symmetric cutouts, such that the base does not extend beyond a back wall of the main body when the display unit is positioned to face substantially forward or rearward with respect to the main body.

20. The electronic device as claimed in claim 17, wherein each cut out in the base includes a plurality of cutout portions that extend inwardly toward the second rotary shaft forming first and second protruding arms.

21. The electronic device as claimed in claim 20, further comprising a spring-loaded step configured to releasably lock the base in a predetermined position, wherein the base is released from the predetermined position when the base is rotated and one of the first and second protruding arms contacts with the spring-loaded step.

22. The electronic device as claimed in claim 16, further comprising a cover plate configured to cover the base.

23. The electronic device as claimed in claim 21, wherein the cover plate is in the shape of a semicircle one side of which is a rounded curve and the other side of which is a straight line having the same length as a cutout portion of the base.

24. The electronic device as claimed in claim 22, wherein one side of the cover plate corresponds to a cutout portion of the base and is formed with an inclined guide plane.

25. The electronic device as claimed in claim 16, wherein the first rotary shaft is supported by a mounting base on the main body.

26. The electronic device as claimed in claim 25, wherein the electronic device comprises a portable electronic device.

27. A swivel hinge assembly for use in an electronic device including a main body and a display unit, the swivel hinge assembly comprising:

a first frame;

a second frame, including a base which is mounted on the first frame so as to be rotatable in a substantially horizontal plane about a substantially vertically extending axis of rotation with respect to the first frame; and

a rotary shaft, which is installed on the base, at least a portion of which is configured to be rotatable about a substantially horizontally extending axis of rotation substantially orthogonal to the first axis of rotation.

28. The swivel hinge assembly as claimed in claim 27, wherein the base is in the shape of a partially cut out disc.

29. The swivel hinge assembly as claimed in claim 28, wherein the cutout portions of the base are symmetrically formed.

30. The swivel hinge assembly as claimed in claim 28, further comprising:  
a housing configured to cover a central portion of a top surface of the second frame.

31. The swivel hinge assembly as claimed in claim 30, wherein the rotary shaft extends through the housing.

32. The swivel hinge assembly as claimed in claim 30, further comprising a cover plate in the shape of a semicircle having a chord with the same length as the cutout portion of the base, wherein the housing is part of the cover plate.

33. The swivel hinge assembly as claimed in claim 32, further comprising a spring-loaded step configured to releasably lock the base in a predetermined position with respect to an opening in a main body of an electronic device in which the swivel hinge assembly is employed.

34. The swivel hinge assembly as claimed in claim 33, wherein the step is formed with an inclined guide plane at a portion corresponding to the cutout portion of the base.

35. The swivel hinge assembly as claimed in claim 34, wherein the step further includes a stepped portion formed adjacent an inner circumference of the opening.

36. The swivel hinge assembly as claimed in claim 27, wherein the first frame includes one or more fixing pins configured to secure the first frame to a main body of an electronic device.

37. A portable electronic device comprising the swivel hinge assembly of claim 27.
38. An electronic device, comprising:  
a main body having an opening formed therein;  
a display unit configured to display information, one end of which is connected to the main body; and  
a swivel hinge assembly comprising a first frame affixed to the main body and a second frame configured to allow the display unit to be rotated in a substantially horizontal plane with respect to the main body about a substantially vertically extending axis, said second frame having a plurality of cutout portions, such that the second frame does not extend beyond a back wall of the main body when the display unit is positioned to face substantially forward or rearward with respect to the main body.
39. The electronic device as claimed in claim 38, further comprising a cover plate configured to cover a region of the opening which is selectively opened according to rotation of the second frame.
40. The electronic device as claimed in claim 38, wherein the first frame comprises a first cylinder configured to receive a second cylinder of the second frame with an inner circumference thereof.



41. The electronic device as claimed in claim 40, wherein the second frame includes a projection configured to mate with a groove provided on the first frame configured to limit rotation of the second frame.

42. The electronic device as claimed in claim 38, wherein the electronic device is a portable electronic device.

43. An electronic device, comprising:  
a main body having an opening therein;  
a rotatable display unit; and  
a swivel hinge assembly configured to rotatably connect the display unit to the main body, wherein the swivel hinge assembly comprises:  
a rotary shaft configured to be rotatable about a substantially vertically extending axis; and  
a partially cut out base configured to be rotatable in a substantially horizontal plane by the first rotary shaft, wherein said rotary shaft and base have an inner hole, through which at least one cable passes.

44. The electronic device as claimed in claim 43, wherein at least two cables pass through said hole, and wherein the two cables are bound together by a binding member.

45. The electronic device as claimed in claim 43, wherein a corner of the inner hole is rounded.

46. The electronic device as claimed in claim 43, wherein a corner of the inner hole is provided with a shock-absorbing member.

47. A swivel hinge assembly, comprising:  
a swivel body with a rotary shaft configured to be rotatable about a substantially vertically extending axis;  
a base with a through-hole in a center thereof;  
a rotary body connected to a side of the swivel body and configured to be rotatable about a substantially laterally extending axis; and  
at least one elastic member configured to limit elastically a rotation of the swivel body or the rotary body.

48. The swivel hinge assembly as claimed in claim 47, wherein the at least one elastic member is configured to be fitted between a side of the swivel body and the rotary body.

49. The swivel hinge assembly as claimed in claim 47, wherein the at least one elastic member is configured to be fitted between the base and the rotary shaft of the swivel body.

50. The swivel hinge assembly as claimed in claim 47, further comprising a first cover fitted onto the lower surface of the base.

51. The swivel hinge assembly as claimed in claim 50, further comprising a second cover fitted into a surface of the first cover.